RAW SEQUENCE LISTING
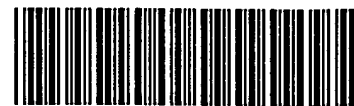
The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/594, 449 _____
Source: _____ IFWP _____
Date Processed by STIC: _____ 10/06/2006 _____

ENTERED

IFWP

RAW SEQUENCE LISTING   DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449   TIME: 10:51:10

Input Set : A:\060734.txt
Output Set: N:\CRF4\10062006\J594449.raw

```
    2 <110> APPLICANT: Zeon Corp.
W-->3 <120> TITLE OF INVENTION: Recombinant Herpes Virus and Use Thereof
W-->4 <130> FILE REFERENCE: P852
C-->5 <140> CURRENT APPLICATION NUMBER: US/10/594,449
C-->5 <141> CURRENT FILING DATE: 2006-09-26
W-->5 <160> NUMBER OF SEQ ID: 27
    6 <170> SOFTWARE: PatentIn version 3.2
W-->7 <210> SEQ ID NO: 1
    8 <211> LENGTH: 469
    9 <212> TYPE: PRT
   10 <213> ORGANISM: Artificial
W-->11 <220> FEATURE:
   12 <223> OTHER INFORMATION: Infecitous laryngotracheitis virus and artificial ORF
W-->13 <400> SEQUENCE: 1
   14 Met Ala Ser Leu Lys Met Leu Ile Cys Val Cys Val Ala Ile Leu Ile
   15 1               5                  10                  15
   16 Pro Ser Thr Leu Ser Gln Asp Ser His Gly Ile Ala Gly Ile Ile Asp
   17             20                  25                  30
   18 Pro Arg Asp Thr Ala Ser Met Asp Val Gly Lys Ile Ser Phe Ser Glu
   19         35                  40                  45
   20 Ala Ile Gly Ser Gly Ala Pro Lys Glu Pro Gln Ile Arg Asn Arg Ile
   21     50                  55                  60
   22 Phe Ala Cys Ser Ser Pro Thr Gly Ala Ser Val Ala Arg Leu Ala Gln
   23 65                  70                  75                  80
   24 Pro Arg His Cys His Arg His Ala Asp Ser Thr Asn Met Thr Glu Gly
   25             85                  90                  95
   26 Ile Ala Val Val Phe Lys Gln Asn Ile Ala Pro Tyr Val Phe Asn Val
   27             100                 105                 110
   28 Thr Leu Tyr Tyr Lys His Ile Thr Thr Val Thr Thr Trp Ala Leu Phe
   29         115                 120                 125
   30 Ser Arg Pro Gln Ile Thr Asn Glu Tyr Val Thr Arg Val Pro Ile Asp
   31     130                 135                 140
   32 Tyr His Glu Ile Val Arg Ile Asp Arg Ser Gly Glu Cys Ser Ser Lys
   33 145                 150                 155                 160
   34 Ala Thr Tyr His Lys Asn Phe Met Phe Phe Glu Ala Tyr Asp Asn Asp
   35             165                 170                 175
   36 Glu Arg Glu Lys Lys Leu Pro Leu Val Pro Ser Leu Leu Arg Ser Thr
   37             180                 185                 190
   38 Val Ser Lys Ala Phe His Thr Thr Asn Phe Thr Lys Arg His Gln Thr
   39         195                 200                 205
   40 Leu Gly Tyr Arg Thr Ser Thr Ser Val Asp Cys Val Val Glu Tyr Leu
   41     210                 215                 220
   42 Gln Ala Arg Ser Val Tyr Pro Tyr Asp Tyr Phe Gly Met Ala Thr Gly
```

RAW SEQUENCE LISTING   DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449   TIME: 10:51:10

Input Set : A:\060734.txt
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```
43 225                   230               235                  240
44 Asp Thr Val Glu Ile Ser Pro Phe Tyr Thr Lys Asn Thr Thr Gly Pro
45                   245               250                  255
46 Arg Arg His Ser Val Tyr Arg Asp Tyr Arg Phe Leu Glu Ile Ala Asn
47                   260               265                  270
48 Tyr Gln Val Arg Asp Leu Glu Thr Gly Gln Ile Arg Pro Pro Lys Lys
49             275               280                  285
50 Arg Asn Phe Leu Thr Asp Glu Gln Phe Thr Ile Gly Trp Asp Ala Met
51       290               295                  300
52 Glu Glu Lys Glu Ser Val Cys Thr Leu Ser Lys Trp Ile Glu Val Pro
53 305               310               315                  320
54 Glu Ala Val Arg Val Ser Tyr Lys Asn Ser Tyr His Phe Ser Leu Lys
55                   325               330                  335
56 Asp Met Thr Met Thr Phe Ser Ser Gly Lys Gln Pro Phe Asn Ile Ser
57                   340               345                  350
58 Arg Leu His Leu Ala Glu Cys Val Pro Thr Ile Ala Ser Glu Ala Ile
59             355               360                  365
60 Asp Gly Ile Phe Ala Arg Lys Tyr Ser Ser Thr His Val Arg Ser Gly
61       370               375                  380
62 Asp Ile Glu Tyr Tyr Leu Gly Ser Gly Gly Phe Leu Ile Ala Phe Gln
63 385               390                  395                  400
64 Lys Leu Met Ser His Gly Leu Ala Glu Met Tyr Leu Glu Glu Ala Gln
65                   405               410                  415
66 Arg Gln Asn His Leu Pro Arg Gly Arg Glu Arg Arg Gln Gly Asp Leu
67             420               425                  430
68 Tyr Lys Cys Gly Met Ala Asp Tyr Asp His Glu Gln Thr Val Arg Thr
69             435               440                  445
70 Glu Gly Pro Glu Met Ser Leu Gly Thr Val Asn Arg Pro Ile Arg Pro
71       450               455                  460
72 Ile Tyr Ser Ser His
73 465
74 <210> SEQ ID NO: 2
75 <211> LENGTH: 429
76 <212> TYPE: PRT
77 <213> ORGANISM: Infectious laryngotracheitis virus
W--> 78 <400> SEQUENCE: 2
79 Met Ala Ser Leu Lys Met Leu Ile Cys Val Cys Val Ala Ile Leu Ile
80 1               5               10                  15
81 Pro Ser Thr Leu Ser Gln Asp Ser His Gly Ile Ala Gly Ile Ile Asp
82             20               25                  30
83 Pro Arg Asp Thr Ala Ser Met Asp Val Gly Lys Ile Ser Phe Ser Glu
84       35               40                  45
85 Ala Ile Gly Ser Gly Ala Pro Lys Glu Pro Gln Ile Arg Asn Arg Ile
86       50               55                  60
87 Phe Ala Cys Ser Ser Pro Thr Gly Ala Ser Val Ala Arg Leu Ala Gln
88 65               70               75                  80
89 Pro Arg His Cys His Arg His Ala Asp Ser Thr Asn Met Thr Glu Gly
90             85               90                  95
91 Ile Ala Val Val Phe Lys Gln Asn Ile Ala Pro Tyr Val Phe Asn Val
```

```
92            100               105               110
93 Thr Leu Tyr Tyr Lys His Ile Thr Thr Val Thr Thr Trp Ala Leu Phe
94        115               120               125
95 Ser Arg Pro Gln Ile Thr Asn Glu Tyr Val Thr Arg Val Pro Ile Asp
96    130               135               140
97 Tyr His Glu Ile Val Arg Ile Asp Arg Ser Gly Glu Cys Ser Ser Lys
98 145               150               155               160
99 Ala Thr Tyr His Lys Asn Phe Met Phe Phe Glu Ala Tyr Asp Asn Asp
100               165               170               175
101 Glu Arg Glu Lys Lys Leu Pro Leu Val Pro Ser Leu Leu Arg Ser Thr
102            180               185               190
103 Val Ser Lys Ala Phe His Thr Thr Asn Phe Thr Lys Arg His Gln Thr
104        195               200               205
105 Leu Gly Tyr Arg Thr Ser Thr Ser Val Asp Cys Val Val Glu Tyr Leu
106    210               215               220
107 Gln Ala Arg Ser Val Tyr Pro Tyr Asp Tyr Phe Gly Met Ala Thr Gly
108 225               230               235               240
109 Asp Thr Val Glu Ile Ser Pro Phe Tyr Thr Lys Asn Thr Thr Gly Pro
110            245               250               255
111 Arg Arg His Ser Val Tyr Arg Asp Tyr Arg Phe Leu Glu Ile Ala Asn
112        260               265               270
113 Tyr Gln Val Arg Asp Leu Glu Thr Gly Gln Ile Arg Pro Pro Lys Lys
114    275               280               285
115 Arg Asn Phe Leu Thr Asp Glu Gln Phe Thr Ile Gly Trp Asp Ala Met
116    290               295               300
117 Glu Glu Lys Glu Ser Val Cys Thr Leu Ser Lys Trp Ile Glu Val Pro
118 305               310               315               320
119 Glu Ala Val Arg Val Ser Tyr Lys Asn Ser Tyr His Phe Ser Leu Lys
120            325               330               335
121 Asp Met Thr Met Thr Phe Ser Ser Gly Lys Gln Pro Phe Asn Ile Ser
122            340               345               350
123 Arg Leu His Leu Ala Glu Cys Val Pro Thr Ile Ala Ser Glu Ala Ile
124    355               360               365
125 Asp Gly Ile Phe Ala Arg Lys Tyr Ser Ser Thr His Val Arg Ser Gly
126    370               375               380
127 Asp Ile Glu Tyr Tyr Leu Gly Ser Gly Gly Phe Leu Ile Ala Phe Gln
128 385               390               395               400
129 Lys Leu Met Ser His Gly Leu Ala Glu Met Tyr Leu Glu Glu Ala Gln
130            405               410               415
131 Arg Gln Asn His Leu Pro Arg Gly Arg Glu Arg Arg Gln
132        420               425
133 <210> SEQ ID NO: 3
134 <211> LENGTH: 1287
135 <212> TYPE: DNA
136 <213> ORGANISM: Infectious laryngotracheitis virus
```

W--> 137 **<400> SEQUENCE: 3**

```
138 atggctagct tgaaaatgct gatctgcgtg tgcgtggcaa tcctgatccc atctacccta    60
139 tctcaagatt cacacggaat tgccggaata atagaccctc gtgatacagc cagcatggat   120
140 gttggaaaaa tctctttctc cgaagccatt gggtcggggg caccgaaaga accccagatt   180
```

RAW SEQUENCE LISTING   DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449   TIME: 10:51:10

Input Set : A:\060734.txt
Output Set: N:\CRF4\10062006\J594449.raw

```
141 agaaacagaa ttttttgcgtg ctcatctcca actggcgcca gtgttgcgag gcttgcccag  240
142 ccacgacatt gtcaccgaca tgccgattcg actaacatga ctgaaggaat tgccgtagtc  300
143 ttcaagcaaa acattgcccc gtacgtcttt aatgtgactc tatactataa acatataacc  360
144 acagttacta cgtgggcatt attctcaaga ccccaaataa caaatgagta cgtgaccagg  420
145 gttccaatag actatcatga aattgtcagg attgatcgat cgggagaatg ctcatccaaa  480
146 gcaacgtatc ataaaaattt catgtttttt gaagcttacg acaatgatga acgagaaaaa  540
147 aaattgcccc tggttccatc actgttaaga tcaactgtct ccaaggcgtt tcatacaact  600
148 aactttacta agcgacatca aaccctggga taccgaacgt ctacatcggt cgactgtgtt  660
149 gtggaatatc tacaggctag atctgtatac ccgtatgatt actttggaat ggcgacaggt  720
150 gatacagtag aaatttctcc cttttatacc aaaaacacga ccggaccaag gcgtcacagt  780
151 gtctacagag actatagatt tctcgaaatc gcaaattatc aagtcaggga tttggaaacc  840
152 ggacaaataa gaccccctaa aaaaagaaac tttctaacag atgaacaatt cactataggc  900
153 tgggatgcaa tggaagaaaa ggaatctgta tgtactctca gtaaatggat tgaagtcccg  960
154 gaagcagttc gtgtttcgta caaaaacagt taccactttt cacttaaaga tatgactatg 1020
155 acgttctcgt ccggaaaaca accttttaac atcagcaggc ttcatttggc tgaatgcgtt 1080
156 cctaccatag cttcggaggc catagatggc atctttgcca gaaagtatag ttcgactcat 1140
157 gtccgttctg gggacatcga atactatctc ggtagtggcg gatttctgat cgcatttcag 1200
158 aaactcatga gccatggctt ggctgaaatg tacctagaag aggcacaaag acaaaatcat 1260
159 ctcccgagag ggagagagcg tcgccaa                                      1287
160 <210> SEQ ID NO: 4
161 <211> LENGTH: 40
162 <212> TYPE: PRT
163 <213> ORGANISM: Artificial
```
W--> 164 <220> FEATURE:
```
165 <223> OTHER INFORMATION: SV40 pA signal
```
W--> 166 <400> SEQUENCE: 4
```
167 Gly Asp Leu Tyr Lys Cys Gly Met Ala Asp Tyr Asp His Glu Gln Thr
168 1               5                  10                  15
169 Val Arg Thr Glu Gly Pro Glu Met Ser Leu Gly Thr Val Asn Arg Pro
170            20                  25                  30
171 Ile Arg Pro Ile Tyr Ser Ser His
172         35              40
173 <210> SEQ ID NO: 5
174 <211> LENGTH: 120
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial
```
W--> 177 <220> FEATURE:
```
178 <223> OTHER INFORMATION: SV40 pA signal
```
W--> 179 <400> SEQUENCE: 5
```
180 ggcgacctct acaaatgtgg tatggctgat tatgatcatg aacagactgt gaggactgag   60
181 gggcctgaaa tgagccttgg gactgtgaat cggccaataa ggcctatttta ctcatcgcat  120
182 <210> SEQ ID NO: 6
183 <211> LENGTH: 18
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial
```
W--> 186 <220> FEATURE:
```
187 <223> OTHER INFORMATION: Synthetic
```
W--> 188 <400> SEQUENCE: 6
```
189 tgtaaaacga cggccagt                                                  18
```

RAW SEQUENCE LISTING   DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449   TIME: 10:51:10

Input Set : **A:\060734.txt**
Output Set: **N:\CRF4\10062006\J594449.raw**

```
     190 <210> SEQ ID NO: 7
     191 <211> LENGTH: 29
     192 <212> TYPE: DNA
     193 <213> ORGANISM: Artificial
W--> 194 <220> FEATURE:
     195 <223> OTHER INFORMATION: Synthetic
W--> 196 <400> SEQUENCE: 7
     197 ttcggtaccg gttattatta tttttgac                     29
     198 <210> SEQ ID NO: 8
     199 <211> LENGTH: 30
     200 <212> TYPE: DNA
     201 <213> ORGANISM: Artificial
W--> 202 <220> FEATURE:
     203 <223> OTHER INFORMATION: Synthetic
W--> 204 <400> SEQUENCE: 8
     205 gggctgcaga gttattaata gtaatcaatt                    30
     206 <210> SEQ ID NO: 9
     207 <211> LENGTH: 27
     208 <212> TYPE: DNA
     209 <213> ORGANISM: Artificial
W--> 210 <220> FEATURE:
     211 <223> OTHER INFORMATION: Synthetic
W--> 212 <400> SEQUENCE: 9
     213 gcactcggat ccattgacat ggctagc                       27
     214 <210> SEQ ID NO: 10
     215 <211> LENGTH: 30
     216 <212> TYPE: DNA
     217 <213> ORGANISM: Artificial
W--> 218 <220> FEATURE:
     219 <223> OTHER INFORMATION: Synthetic
W--> 220 <400> SEQUENCE: 10
     221 agatgccatc tatggcctcc gaagctatgg                    30
     222 <210> SEQ ID NO: 11
     223 <211> LENGTH: 30
     224 <212> TYPE: DNA
     225 <213> ORGANISM: Artificial
W--> 226 <220> FEATURE:
     227 <223> OTHER INFORMATION: Synthetic
W--> 228 <400> SEQUENCE: 11
     229 tggctgaatg cgttcctacc atagcttcgg                    30
     230 <210> SEQ ID NO: 12
     231 <211> LENGTH: 29
     232 <212> TYPE: DNA
     233 <213> ORGANISM: Artificial
W--> 234 <220> FEATURE:
     235 <223> OTHER INFORMATION: Synthetic
W--> 236 <400> SEQUENCE: 12
     237 cgggtacctt attcgtcttc gctttcttc                     29
     238 <210> SEQ ID NO: 13
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449 TIME: 10:51:11

Input Set : A:\060734.txt
Output Set: N:\CRF4\10062006\J594449.raw

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,23,24,25,26,27

VERIFICATION SUMMARY   DATE: 10/06/2006
PATENT APPLICATION: **US/10/594,449** TIME: 10:51:11

Input Set : **A:\060734.txt**
Output Set: **N:\CRF4\10062006\J594449.raw**

```
L:3 M:283 W: Missing Blank Line separator, <120> field identifier
L:4 M:283 W: Missing Blank Line separator, <130> field identifier
L:5 M:270 C: Current Application Number differs, Replaced Current Application No
L:5 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:5 M:283 W: Missing Blank Line separator, <160> field identifier
L:7 M:283 W: Missing Blank Line separator, <210> field identifier
L:11 M:283 W: Missing Blank Line separator, <220> field identifier
L:13 M:283 W: Missing Blank Line separator, <400> field identifier
L:78 M:283 W: Missing Blank Line separator, <400> field identifier
L:137 M:283 W: Missing Blank Line separator, <400> field identifier
L:164 M:283 W: Missing Blank Line separator, <220> field identifier
L:166 M:283 W: Missing Blank Line separator, <400> field identifier
L:177 M:283 W: Missing Blank Line separator, <220> field identifier
L:179 M:283 W: Missing Blank Line separator, <400> field identifier
L:186 M:283 W: Missing Blank Line separator, <220> field identifier
L:188 M:283 W: Missing Blank Line separator, <400> field identifier
L:194 M:283 W: Missing Blank Line separator, <220> field identifier
L:196 M:283 W: Missing Blank Line separator, <400> field identifier
L:202 M:283 W: Missing Blank Line separator, <220> field identifier
L:204 M:283 W: Missing Blank Line separator, <400> field identifier
L:210 M:283 W: Missing Blank Line separator, <220> field identifier
L:212 M:283 W: Missing Blank Line separator, <400> field identifier
L:218 M:283 W: Missing Blank Line separator, <220> field identifier
L:220 M:283 W: Missing Blank Line separator, <400> field identifier
L:226 M:283 W: Missing Blank Line separator, <220> field identifier
L:228 M:283 W: Missing Blank Line separator, <400> field identifier
L:234 M:283 W: Missing Blank Line separator, <220> field identifier
L:236 M:283 W: Missing Blank Line separator, <400> field identifier
L:242 M:283 W: Missing Blank Line separator, <220> field identifier
L:244 M:283 W: Missing Blank Line separator, <400> field identifier
L:250 M:283 W: Missing Blank Line separator, <220> field identifier
L:252 M:283 W: Missing Blank Line separator, <400> field identifier
L:258 M:283 W: Missing Blank Line separator, <220> field identifier
L:260 M:283 W: Missing Blank Line separator, <400> field identifier
L:266 M:283 W: Missing Blank Line separator, <220> field identifier
L:268 M:283 W: Missing Blank Line separator, <400> field identifier
L:274 M:283 W: Missing Blank Line separator, <220> field identifier
L:276 M:283 W: Missing Blank Line separator, <400> field identifier
L:282 M:283 W: Missing Blank Line separator, <220> field identifier
L:284 M:283 W: Missing Blank Line separator, <400> field identifier
L:290 M:283 W: Missing Blank Line separator, <220> field identifier
L:292 M:283 W: Missing Blank Line separator, <400> field identifier
L:298 M:283 W: Missing Blank Line separator, <220> field identifier
L:300 M:283 W: Missing Blank Line separator, <400> field identifier
L:306 M:283 W: Missing Blank Line separator, <220> field identifier
L:308 M:283 W: Missing Blank Line separator, <400> field identifier
L:314 M:283 W: Missing Blank Line separator, <400> field identifier
L:343 M:283 W: Missing Blank Line separator, <220> field identifier
```

VERIFICATION SUMMARY   DATE: 10/06/2006
PATENT APPLICATION: US/10/594,449   TIME: 10:51:11

Input Set : **A:\060734.txt**
Output Set: **N:\CRF4\10062006\J594449.raw**

```
L:345 M:283 W: Missing Blank Line separator, <400> field identifier
L:351 M:283 W: Missing Blank Line separator, <220> field identifier
L:353 M:283 W: Missing Blank Line separator, <400> field identifier
L:359 M:283 W: Missing Blank Line separator, <220> field identifier
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